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ATTORNEY DOCKET NO. 7781.0013-00

Box PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231

Re: New U.S. Patent Application
Title: VALUE CHAIN OPTIMIZATION SYSTEM AND METHOD
Inventors: Stefan HACK, Michael AUGSBURGER and Miho BIRIMISA

Sir:

We enclose the following papers for filing in the United States Patent and Trademark Office in connection with the above patent application.

1. Application - 30 pages, including 7 independent claims and 57 claims total.

2. Drawings - 9 sheets of formal drawings (Figures 1-7).

3. A check for $1,668.00 representing a $690.00 filing fee and $978.00 for additional claims.

The application claims priority under 35 U.S.C. § 120 based on Provisional Patent Application Serial No. 60/191,452, filed March 23, 2000.

This application is being filed under the provisions of 37 C.F.R. § 1.53(f). Applicant(s) await notification from the Patent and Trademark Office of the time set for filing the Declaration.

Please accord this application a serial number and filing date.

The Commissioner is hereby authorized to charge any additional filing fees due and any other fees due under 37 C.F.R. § 1.16 or § 1.17 during the pendency of this application to our Deposit Account No. 06-0916.

Respectfully submitted,

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Enclosures

Attorney Docket No. 7781.0013-00

UNITED STATES PATENT APPLICATION

OF

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FOR

VALUE CHAIN OPTIMIZATION SYSTEM AND METHOD

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RELATED APPLICATIONS

Provisional U.S. Patent Application No. 60/191,452 entitled "VALUE CHAIN OPTIMIZATION SYSTEM AND METHOD" filed March 23, 2000, is relied upon and is incorporated by reference in its entirety in this application.

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates generally to data processing systems and, more particularly, to value chain optimization in business scenarios.

Description of the Related Art

Every day, more businesses gain access to the Web, and create electronic commerce systems. Electronic commerce, or "e-commerce," is the term often used to refer to providing goods and services to consumers and/or other businesses using the Internet. E-commerce is a unique opportunity for businesses of any size and can expand a business's marketplace.

Developing a coherent e-commerce initiative can take an enormous amount of resources. Simply purchasing a Web server and Internet shopping software does not enable a business to profit from e-commerce, regardless of the business. That is, intensifying global competition, increasing customer demands, and rapidly changing markets require a business wanting to create an e-commerce business initiative to develop not only new business models but also new ways to represent these models. Current

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business models do not conform well with "Internet time" and should be redefined for suitability in the e-commerce age.

To help a business redefine its business model and gain a more refined control over various e-commerce business processes, the concept of "business modeling" has become important to help optimize business processes. Business modeling may include creating a set of "navigational maps" that help businesses expand into and/or "engineer" a new area. The models may be a set of tools, or charts corresponding to various business scenarios and business processes (e.g., organizational charts, workflows, tasks, hierarchy charts, entity relationship models, and process matrixes).

To visualize business processes and scenarios, businesses use both "Value Chains" and "Event Driven Process Chains" (EPCs). Value chains are chains of value-added events starting from a beginning of the making of an end-product (or service) through the completion of the making of the end-product. Thus, a value chain describes the creation process from raw material until the final product.

EPCs are also an integral part in visualizing business processes and scenarios. EPCs link data, tasks, and organizations in various business processes. EPCs depict processes and activities throughout an enterprise as linear flow charts to help the enterprise refine their business. An EPC consists of events (e.g., an order is received), functions (e.g., check order), linking operators that connect events and functions, and a process path that represents logical connections between processes within a business scenario. Although EPCs provide increased levels of optimization when implemented in

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an enterprise, and accordingly help businesses create e-commerce initiatives, they are limited in their features capability and do not provide any cross-enterprise functionality.

SUMMARY OF THE INVENTION

In accordance with the invention, systems and methods consistent with the present invention create a collaboration between members of an e-community within a Collaborative Business Scenario (CBS). Specifically, the CBS combines one enterprise with various business participants from multiple industries to maximize the value potential for the participants involved in the collaboration. The CBS also provides tools to conceive and discuss new collaborative business models within various e-communities. The CBS may encompass electronic marketplaces, consumers, and multiple enterprises.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate an embodiment of the invention and, together with the description, serve to explain the advantages and principles of the invention.

Figure 1 is an exemplary representation of an oil and gas enterprise value chain showing opportunities for value chain optimization with CBSs.

Figures 2A and 2B are collectively a flow diagram representing the steps performed by a method consistent with the present invention.

Figure 3 is an exemplary business view for use in a manner consistent with the present invention.

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Figures 4A and 4B depict exemplary interaction views for use in a manner consistent with the present invention.

Figure 5 depicts an exemplary component view for use in a manner consistent with the present invention.

Figure 6 depicts an exemplary Solution Map for use in a manner consistent with the present invention.

Figure 7 shows a block diagram of a system for practicing methods and systems consistent with the present invention.

DETAILED DESCRIPTION

Reference will now be made in detail to an implementation consistent with the principles of the present invention as illustrated in the accompanying drawings. Wherever possible, the same reference numbers will be used throughout the drawings and the following description to refer to the same or like parts.

Overview

Methods and systems consistent with the present invention create collaboration between members of an e-community within a Collaborative Business Scenario (CBS). An e-community is a virtual community pursuing a common business goal using electronic commerce. Collaboration is in creating value-generating business processes that extend beyond the boundaries of one enterprise. That is, collaboration combines one enterprise with various business participants from multiple industries. A CBS is several participants in different enterprises working on a common goal linking different activities (e.g.,

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collaborative planning, vendor-managed inventory). To achieve the goal, enterprises share information and define responsibilities for specific activities. As such, the CBS may span several enterprise systems.

Enterprises desire to optimize value chains within a given industry. CBSs provide a tool to analyze, plan, and optimize value chains for an enterprise within a given industry. The CBS may perform value chain optimizations for not only one enterprise but also for other business participants beyond the confines of one enterprise. For example, in an oil and gas enterprise, CBSs may involve engineering project collaboration with engineering suppliers, collaborative planning with distributors, or collaborative forecasting and replenishment with service station retailers.

Figure 1 depicts an exemplary oil and gas five step value chain and various CBSs for the oil and gas value chain. The value chain starts with exploration & production of oil and ends with providing the oil at a service station, as indicated in Figure 1. The CBSs may consist of categories, such as business-to-business scenarios, customer interaction scenarios, or marketplace scenarios.

A CBS can be used in a variety of industries or business communities. The CBS consists of various entities, such as participants (e.g., importers, suppliers OEMs, manufacturers, distributors, vendors, sellers, end-customers, insurance companies, publishing companies, service companies, paper manufacturer), activities (e.g., order tracking, receipt processing, production, search requests), information sharing (e.g., business documents, status reports, purchase orders), document flow features (e.g. a search for specified vehicles), roles (e.g., employee roles such as a strategic purchaser),

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business benefits (e.g., improved buying power, reduced delivery times, cost advantages, increased customer satisfaction), value potential (e.g., 50% increase), type of CBS (e.g., Business to Business Scenario, mySAP.com Marketplace Scenario, Customer Interaction Scenario), and the relationship to an SAP Solution Map, all described below.

Each participant in a CBS acts according to a specific role (e.g., an employee that purchases goods is a purchaser), and each activity contains functionality and relates to a participant's role. CBSs also contain business documents, information flow, and systems landscapes (e.g., roles of the systems, software components, software releases, information to exchange between each system, and functions to process exchanged information within a system). Various aspects of CBSs are also described below.

The CBS enables a top-down approach to optimize value chain between enterprises. This allows the inter-company processes as well as cross-industry processes to be described. The CBS also provides an intuitive graphical design illustrating various collaborative aspects. The various illustrations, although directly derived from one another, cover separate aspects, offer complementary information (e.g., business view, interaction view, component view), and define business benefits for various participants. Moreover, the illustrations explain the contribution of each participant of inter-company collaboration to value creation.

In addition, the CBS enables discussion between business partners on new business opportunities using inter-company collaboration. The discussions facilitate discussions between companies and business partners regarding business benefits as well as discussions with software vendors on the feasibility and scope of required software

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solutions as well as its subsequent implementation. For example, software vendors provide specified functionality that fits into a specific activity of a CBS. Thus, participants may choose to agree with vendors regarding the standards used to exchange documents between activities.

Method of Operation

Figures 2A and 2B are a flow diagram representing the steps performed by a method consistent with the present invention when creating a CBS. Some aspects of the following method will vary depending on the nature of the activities of the business being evaluated. The following example describes an organization whose principal activity is the manufacture and development of vehicle sales. Information for the CBS may be obtained from various sources, such as industry, business, or value chain expertise, knowledge on value-added activities of each of the participants involved, knowledge on the individual information needs of each role in the entire business scenario, knowledge of employee roles, data modeling expertise, knowledge of the industry business blueprints and Solution Maps (described below), business application expertise (e.g., SAP Financials), implementation expertise, identification of value potentials by realizing collaborative business opportunities that result in tangible business benefits, industry knowledge anticipating the quantifiable business benefits, and/or independent studies (e.g., Harvard Business Review, Goldman Sachs, Management Consulting Firms).

First, all participants in the CBS are identified (step 202). The types of participants identified (e.g., OEM, importers, dealers) will dictate the type of CBS to use. For example, if the participants are employees of different enterprises (e.g., OEM, importer, dealer), the

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type of CBS is a "Business to Business Scenario" CBS. As another example, if the participants are buyers and sellers in an electronic marketplace, then the type of CBS is a "mySAP.com Marketplace Scenario." In yet another example, if the parties are multiple enterprises working together to supply information to a set of customers, then the CBS is a "Customer Interaction Scenario."

Next, activities performed by the participants to achieve a common business goal are identified (step 204), business benefits are identified (step 206), and value potentials for the business benefits are identified (step 208). With the information identified in steps 202, 204, 206, and 208, a business view is created (step 210). Business views depict the interaction between participants, activities, business benefits, and/or value potentials.

Figure 3 depicts an exemplary business view 300 in accordance with the present invention. Business view 300, which is a graphical depiction of interlocking polygons (e.g., hexagons), enables the integration of common business purposes, and the ability to anticipate business benefits while implementing the CBS. Also, business view 300 provides value potential in terms of quantifiable business benefits (e.g., reduced delivery time by up to 75%) that allow return-on-investment (ROI) calculations to be formulated.

View 300 illustrates collaboration between various participants involved (e.g.,OEM, importer, and dealer), types of CBS present, collaborative aspects between the participants, scope of the business collaboration, impact on the business and the value chain, anticipated business benefits, and quantifiable value potential.

Business view 300 comprises participants 302, activities 304, business benefits 306, value potentials 308, and zipper button 310. Participants 302 are depicted in vertical lanes

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signified in different colors. Activities 304 illustrate the sequence and scope using interlocking hexagon-shaped boxes similar to a zipper. Zipper button 310 links business view 300 to interaction view 400 (described below).

Business benefits 306 consist of qualitative business benefits (e.g., improved market intelligence) and quantitative/quantifiable business benefits with so-called value potentials 308 (e.g., reduced delivery times by up to 75%).

Once business view 300 is created, a functionality of each activity 304 and roles of participants that perform those activities 304 are identified (step 212 in Fig. 2), various business documents are identified (step 214), and information flow between participants 302 is identified (step 216). For example, a role of an employee (participant) may be as a strategic purchaser, and the functionality may be to create vehicles pools, or search for new vehicles. Business documents are documents exchanged between activities 304. Finally, information flow relates to information movement between activities 304. With the information from steps 212, 214, and 216, an interaction view is created (step 218).

Figure 4A depicts an exemplary interaction view 400 in accordance with the present invention. Interaction view 400 is derived directly from business view 300 and includes additional information, identified in steps 212, 214, and 216, regarding the elements of collaborative interaction between the participants. That is, interaction view 400 contains additional elements detailing how information is exchanged, thereby helping to understand the CBS. Also, interaction view 400 depicts the dependency of participants involved in common business purposes, links to the personalized roles and features included in the collaboration. Thus, enabling a user to view the information exchange between

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participants, such as information sharing and/or document flow. Information sharing relates to having multiple participants view the same information so information is not duplicated. Document flow refers to sending a document from one participant to another so, different from information sharing, a document is copied for each participant.

Interaction view 400 depicts a sequence of collaborative activities between all participants, roles of the participants in the collaboration, detailed features for each of the collaborative activities, information shared between participants, business documents, and interfaces between the participants. Thereby illustrating the interdependency of the participants in the CBS. Similar to business view 300, interaction view 400 contains participants 402, and activities 404. Lines between activities 404 depict the flow of information and/or exchange of business documents (e.g., sales orders) between participants 402. Double triangles on each line are coded (e.g., shaded) based on the sending participant 402.

Figure 4B depicts a second exemplary interaction view 450 in accordance with the present invention. Interaction view 450 depicts various "call-outs" 456, 458 displayed when a user selects an activity 454 or a coded triangle. For example, call-out 456 depicts a vehicle configuration business document related to triangle 452, and call-out 458 depicts the roles of a participant 302 related to the features of activity 454.

A button may link interaction view 400 to component view 500 (described below).

Once interaction view 400 is created, system requirements needed to implement the CBS are identified (step 220 in Fig. 2). For example, system requirements may be systems needed to be installed to implement the CBS, system landscapes, roles of the

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systems, software components, software releases, information to exchange between each system, and functions to process exchanged information within a system With the information from step 220, a component view is created (step 222).

Figure 5 depicts a exemplary component view 500 in accordance with the present invention. Component view 500 offers a further drill-down view (e.g., technical view) of the CBS and its implementation in an installed systems landscape. The system landscape depicts the different activities of a CBS implemented in all Information Technology (IT) systems. That is, component view 500 depicts the availability of IT systems and specific activities of software components in a CBS. Component view 500 provides an exploded view of the concrete system topology in place at each participant's location. In addition to the system landscape, a concrete system topology includes the connections between various depicted systems (e.g., connecting a participant's location to another participant's location).

Component view 500 graphically depicts the overall design of the system landscape, including identification of centralized and distributed systems, individual software components, and current releases. Component view 500 also provides information relating to each system needed to be installed to implement the CBS. For example, a centralized system is the main office of the participant, whereas the distributed system is any additional site (e.g., warehouse, plant site). Component view 500 depicts a CBS at the centralized site as well as the distributed site.

Once a component view 500 is created, a particular industry and corresponding Solution Maps for that industry are identified (step 224 in Fig. 2). A Solution Map is a tool

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used to analyze strategies and activities for specified industries and preferably depicts a wide range of solutions for various activities. Thus, if a Solution Map contains information that corresponds to functionality of an activity 304, that Solution Map may be linked to the activity(step 226). As an example, Solution Maps relating to the automotive industry may apply to a vehicle sales CBS. And, if the automotive Solution Maps contain solutions that correspond to an activity for purchasing vehicles, a link may be created to that automotive Solution Map from the corresponding activity. An exemplary automotive Solution Map that may be linked to a vehicle sales CBS is depicted in Figure 6. Solution Map 600 contains links 602 to various activities 304 in views 300, 400, 450.

Architecture

Figure 7 is a block diagram that illustrates a computer system 700 upon which embodiments of the invention may be implemented. Computer system 700 includes a bus 702 or other communication mechanism for communicating information, and a processor 704 coupled with bus 702 for processing information. Computer system 700 also includes a memory 706, which can be a random access memory (RAM) or other dynamic storage device, coupled to bus 702 for creating business views, interaction views, and component views, and instructions to be executed by processor 704. Memory 706 also may be used for storing temporary variables or other intermediate information during execution of instructions to be executed by processor 704. Computer system 700 further includes a read only memory (ROM) 708 or other static storage device coupled to bus 702 for storing static information and instructions for processor 704. A storage device 710, such as a

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magnetic disk or optical disk, is provided and coupled to bus 702 for storing information and instructions.

Computer system 700 may be coupled via bus 702 to a display 712, such as a cathode ray tube (CRT) or liquid crystal display (LCD), for displaying information to a computer user. An input device 714, including alphanumeric and other keys, is coupled to bus 702 for communicating information and command selections to processor 704. Another type of user input device is cursor control 716, such as a mouse, a trackball or cursor direction keys for communicating direction information and command selections to processor 704 and for controlling cursor movement on display 712. This input device typically has two degrees of freedom in two axes, a first axis (e.g., x) and a second axis (e.g., y), that allows the device to specify positions in a plane.

A computer system 700 optimizes value chains. Consistent with one implementation of the invention, a graphical depiction of the collaboration of participants is provided by computer system 700 in response to processor 704 executing one or more sequences of one or more instructions contained in memory 706. Such instructions may be read into memory 706 from another computer-readable medium, such as storage device 710. Execution of the sequences of instructions contained in memory 706 causes processor 704 to perform the process states described herein. Alternatively hard-wired circuitry may be used in place of or in combination with software instructions to implement the invention. Thus implementations of the invention are not limited to any specific combination of hardware circuitry and software.

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The term "computer-readable medium" as used herein refers to any media that participates in providing instructions to processor 704 for execution. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media. Non-volatile media includes, for example, optical or magnetic disks, such as storage device 710. Volatile media includes dynamic memory, such as memory 706. Transmission media includes coaxial cables, copper wire, and fiber optics, including the wires that comprise bus 702. Transmission media can also take the form of acoustic or light waves, such as those generated during radio-wave and infra-red data communications.

Common forms of computer-readable media include, for example, a floppy disk, a flexible disk, hard disk, magnetic tape, or any other magnetic medium, a CD-ROM, any other optical medium, punch cards, papertape, any other physical medium with patterns of holes, a RAM, PROM, and EPROM, a FLASH-EPROM, any other memory chip or cartridge, a carrier wave as described hereinafter, or any other medium from which a computer can read.

Various forms of computer readable media may be involved in carrying one or more sequences of one or more instructions to processor 704 for execution. For example, the instructions may initially be carried on magnetic disk of a remote computer. The remote computer can load the instructions into its dynamic memory and send the instructions over a telephone line using a modem. A modem local to computer system 700 can receive the data on the telephone line and use an infra-red transmitter to convert the data to an infra-red signal. An infra-red detector coupled to bus 702 can receive the data carried in the

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infra-red signal and place the data on bus 702. Bus 702 carries the data to memory 706, from which processor 704 retrieves and executes the instructions. The instructions received by memory 706 may optionally be stored on storage device 710 either before or after execution by processor 704.

Conclusion

Systems and methods consistent with the present invention create a collaboration between members of an e-community within a CBS. The CBS combines one enterprise with various business partners from multiple industries to maximize the value potential for the participants involved in the collaboration. The CBS also provides tools to conceive and discuss new collaborative business models within various e-communities. The CBS may encompass electronic marketplaces and consumers.

The foregoing description of implementations consistent with the invention has been presented for purposes of illustration and description. It is not exhaustive and does not limit the invention to the precise form disclosed. Modifications and variations are potential in light of the above teachings or may be acquired from practicing of the invention. Persons skilled in the art will appreciate that other e-communities may be used, such as automotive, chemicals, or high technology. Moreover, the described implementation includes software but the present invention may be implemented as a combination of hardware and software or in hardware alone.

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WE CLAIM:

1. A method for assisting collaboration between participants in a business community comprising:

providing on a display device a business view depicting a plurality of interlocked polygons illustrating interactions between the participants, the polygons being positioned relative to each other to define a sequence of instructions; and

deriving an interaction view from the business view, the interaction view depicting additional information between the participants.

2. The method of claim 1, further comprising:

providing, in the business view, an indication of the benefits from the interactions.

3. The method of claim 1, further including:

providing a component view depicting an implementation of the business and interaction view in a physical system.

4. The method of claim 3, wherein providing the component view includes depicting the availability of IT components in the physical system.

5. The method of claim 3, wherein providing the component view includes depicting the activities of software components.

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6. A method for displaying collaboration between participants in a business community, comprising:

rendering a first graphical depiction of a sequence of interactions between the participants; and

rendering a second graphical depiction, derived from the first graphical depiction, containing information flow.

7. The method of claim 6, further including:

rendering a third graphical depiction depicting an implementation of the first and second graphical depiction in a physical system.

8. The method of claim 6, wherein rendering the first graphical depiction includes, representing a plurality of interactions depicted as interlocking polygons.

9. The method of claim 6, wherein rendering the graphical depictions includes, vertically aligning representations of interactions involving one of the participants.

10. The method of claim 6, wherein rendering the graphical depictions include, vertically aligning representations of the business benefits, wherein the business benefits correspond to at least one participant.

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11. The method of claim 6, wherein rendering the graphical depictions includes, vertically aligning representations of quantifiable business benefits, wherein the quantifiable business benefits provide a basis for ROI calculations.

12. The method of claim 6, further including producing a link from the first graphical depiction to the second graphical depiction.

13. The method of claim 6, wherein rendering the second graphical depiction includes providing additional information regarding interdependency of the participants.

14. The method of claim 6, wherein rendering the second graphical depiction includes depicting a sequence of activities.

15. The method of claim 6, wherein rendering the second graphical depiction includes depicting information sharing between participants.

16. The method of claim 6, wherein rendering the second graphical depiction includes depicting roles in the collaboration.

17. The method of claim 6, wherein rendering the second graphical depiction includes depicting features in the collaboration.

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18. The method of claim 7, wherein rendering the third graphical depiction includes depicting a system topology used by a participant.

19. The method of claim 18, wherein rendering the third graphical depiction includes depicting distributed and centralized systems.

20. The method of claim 7, wherein the third graphical depiction is derived from the second graphical depiction and contains additional information regarding the collaboration between participants.

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21. A method of displaying a value chain optimization in a collaborative business scenario, comprising the steps, executed in a data processing system, of:

displaying a first view consisting of

a plurality of interlocking polygons, wherein the polygons corresponding to each participant being vertically aligned and the activities of the participants;

business benefits of each activity being shown in a vertical arrangement.

22. The method of claim 21, further comprising the steps of:

displaying a second view consisting of

participants of the collaborative business scenario in vertical lanes;

activities of the participants depicted illustrated as interlocking polygons; and

information flow between the participants illustrated as lines linking the interlocking polygons; and

connectors connecting a line and an activity illustrating a direction of document exchange.

23. The method of 22, further including displaying a third view consisting of:

a system topology at a particular participant's site

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24. A method for creating a collaboration between participants in a business scenario, comprising the steps, executed in a data processing system, of:

identifying a collaborative business, participants in the collaborative business, and activities of the participants;

identifying functionality of the activities;

identifying system requirements used to implement the collaborative business;

identifying quantitative and qualitative business benefits based on a collaboration between participants;

identifying an industry and corresponding solution maps relating to the collaborative business; and

creating a collaboration based on information obtained in the identifying steps.

25. The method of claim 24, wherein the participants are consumers, enterprises, and/or electronic marketplaces.

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26. A system for displaying collaboration between participants in a business community, comprising:

first rendering means for rendering a first graphical depiction of a sequence of interactions between the participants; and

second rendering means for rendering a second graphical depiction, derived from the first graphical depiction, containing information flow.

27. The system of claim 26, further comprising:

third rendering means for rendering a third graphical depiction depicting an implementation of the first and second graphical depiction in a physical system.

28. The system of claim 26, wherein the first rendering means renders the interactions depicted as interlocking polygons.

29. The system of claim 26, wherein the first rendering means further comprises aligning means for vertically aligning representations of interactions involving one of the participants.

30. The system of claim 26, wherein the first rendering means further comprises aligning means for vertically aligning representations of the business benefits, wherein the business benefits correspond to at least one participant.

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31. The system of claim 26, wherein the first rendering means further comprises aligning means for vertically aligning representations of quantifiable business benefits, wherein the quantifiable business benefits provide a basis for ROI calculations.

32. The system of claim 26, further comprising producing means for producing a link from the first graphical depiction to the second graphical depiction.

33. The system of claim 26, wherein the second rendering means further renders additional information regarding interdependency of the participants in the second graphical depiction.

34. The system of claim 26, wherein the second rendering means further renders a sequence of activities.

35. The system of claim 26, wherein the second rendering means further renders information sharing between participants.

36. The system of claim 26, wherein the second rendering means further renders roles in the collaboration.

37. The system of claim 26, wherein the second rendering means further renders features in the collaboration.

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38. The system of claim 27, wherein the third rendering means further renders a system topology used by a participant.

39. The system of claim 38, wherein the third rendering means further renders distributed and centralized systems.

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40. A computer readable medium for controlling a data processing system to perform a method for displaying collaboration between participants in a business community executed in a data processing system, the computer readable medium comprising:

a rendering module for rendering a first graphical depiction of a sequence of interactions between the participants; and

a second rendering module for rendering a second graphical depiction, derived from the first graphical depiction, containing information flow.

41. The computer readable medium of claim 40, further comprising:

a third rendering module for rendering a third graphical depiction depicting an implementation of the first and second graphical depiction in a physical system.

42. The computer readable medium of claim 40, wherein the rendering module includes a representing module for representing a plurality of interactions depicted as interlocking polygons.

43. The computer readable medium of claim 40, wherein the second rendering module includes, a representation module for vertically aligning representations of interactions involving one of the participants.

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44. The computer readable medium of claim 40, wherein the rendering module includes, a representation module for vertically aligning representations of the business benefits, wherein the business benefits correspond to at least one participant.

45. The computer readable medium of claim 40, wherein the rendering module includes, a representation module for vertically aligning representations of quantifiable business benefits, wherein the quantifiable business benefits provide a basis for ROI calculations.

46. The computer readable medium of claim 40, further including a producing module for producing a link from the first graphical depiction to the second graphical depiction.

47. The computer readable medium of claim 40, wherein the second rendering module includes, a providing module for providing additional information regarding interdependency of the participants.

48. The computer readable medium of claim 40, wherein the second rendering module includes, a depicting module for depicting a sequence of activities.

49. The computer readable medium of claim 40, wherein the second rendering module includes, a depicting module for depicting information sharing between participants.

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50. The computer readable medium of claim 40, wherein the second rendering module includes, a depicting module for depicting roles in the collaboration.

51. The computer readable medium of claim 40, wherein the second rendering module includes, a depicting module for depicting features in the collaboration.

52. The computer readable medium of claim 41, wherein the third rendering module includes, a depicting module for depicting a system topology used by a participant.

53. The computer readable medium of claim 52, wherein the third rendering module includes, a depicting module for depicting distributed and centralized systems.

54. The computer readable medium of claim 51, wherein the third graphical depiction is derived from the second graphical depiction and contains additional information regarding the collaboration between participants.

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55. A computer readable medium for controlling a data processing system to perform a method for displaying a value chain optimization in a collaborative business scenario executed in a data processing system, the computer readable medium comprising:

a displaying module for displaying a first view consisting of

a plurality of interlocking polygons, wherein the polygons corresponding to each participant being vertically aligned and the activities of the participants;

business benefits of each activity being shown in a vertical arrangement.

56. The computer readable medium of claim 55, further comprising:

a displaying module for displaying a second view consisting of

participants of the collaborative business scenario in vertical lanes;

activities of the participants depicted illustrated as interlocking polygons; and

information flow between the participants illustrated as lines linking the interlocking polygons; and

connectors connecting a line and an activity illustrating a direction of document exchange.

57. The computer readable medium of 55, further including a displaying module for displaying a third view consisting of:

a system topology at a particular participant's site.

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ABSTRACT

The activities and interactions between participants in a Collaborative Business Scenario are displayed as various views of polygons that are positioned to communicate interactions, communications, implementations, and qualitative and quantifiable business benefits resulting in successful optimization of an enterprise's value chain.

Attorney Docket No. 10559-0005

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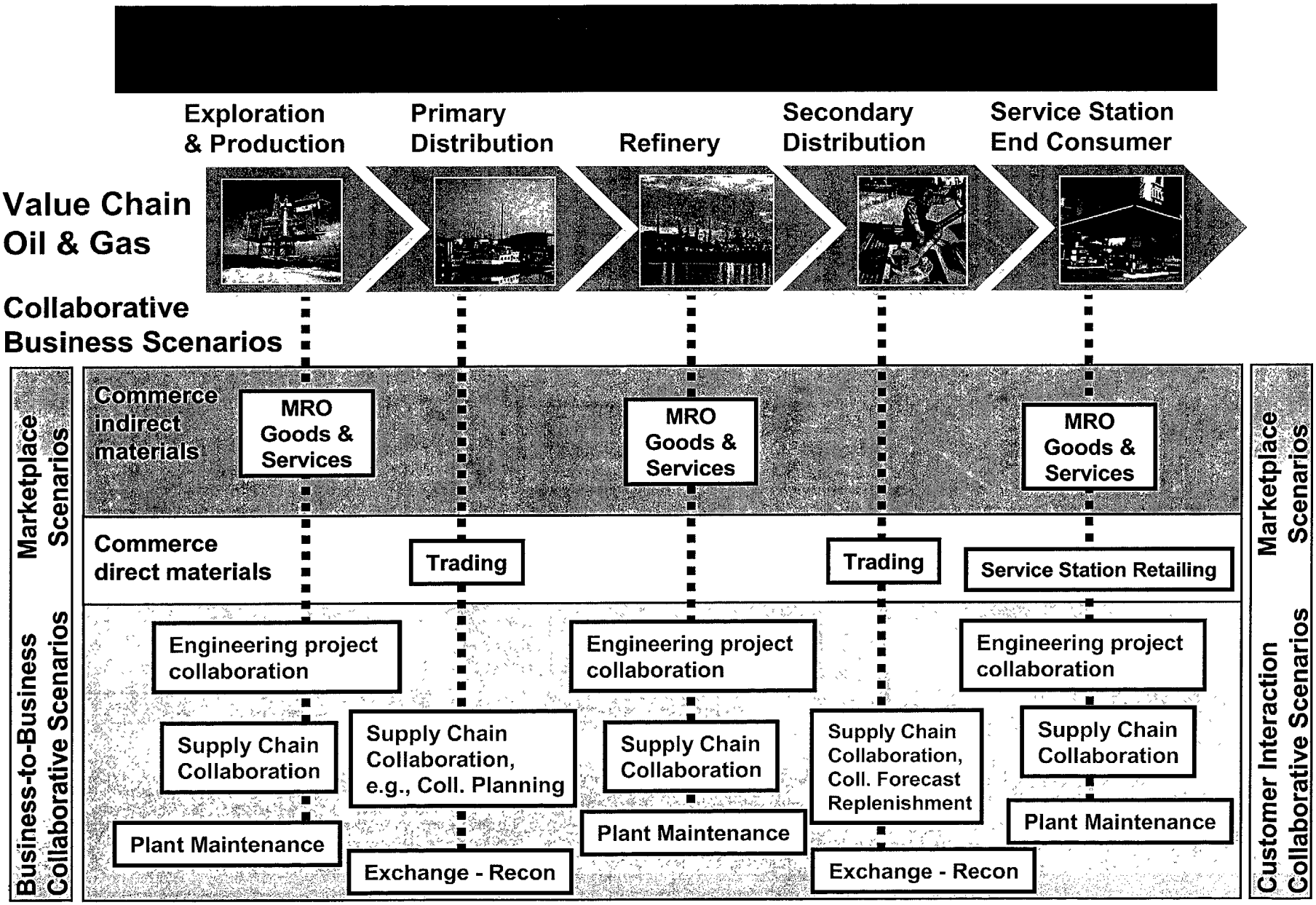

FIG. 1

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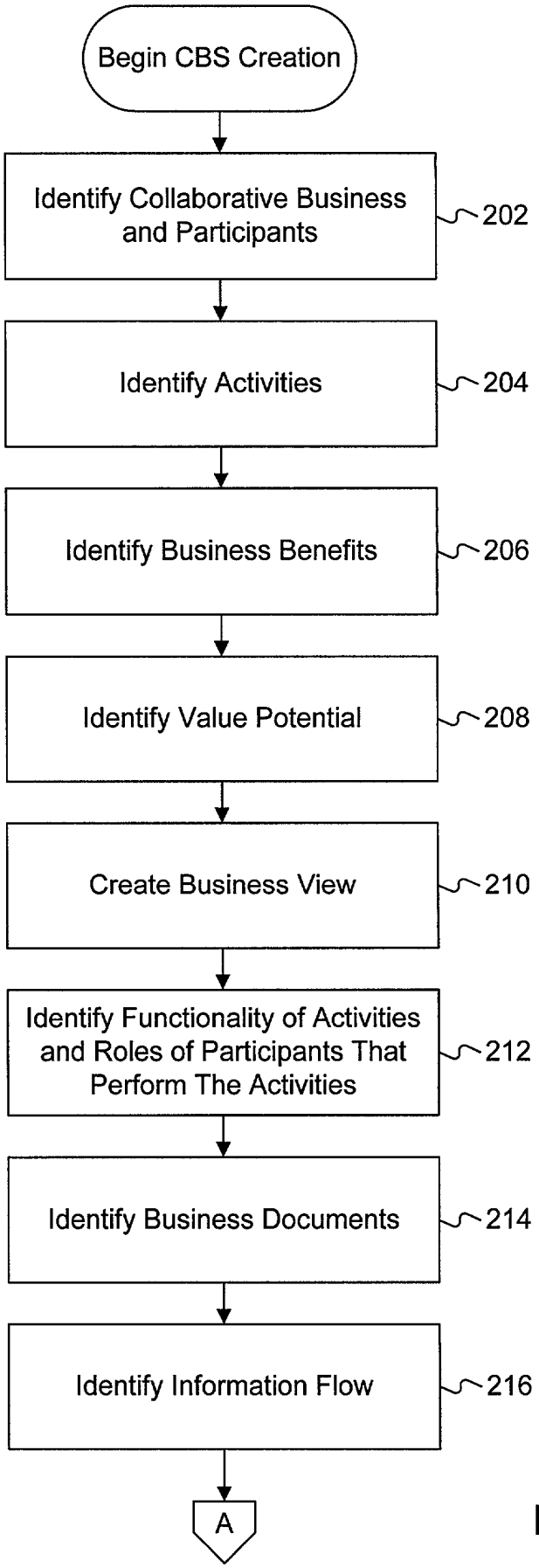

FIG. 2A

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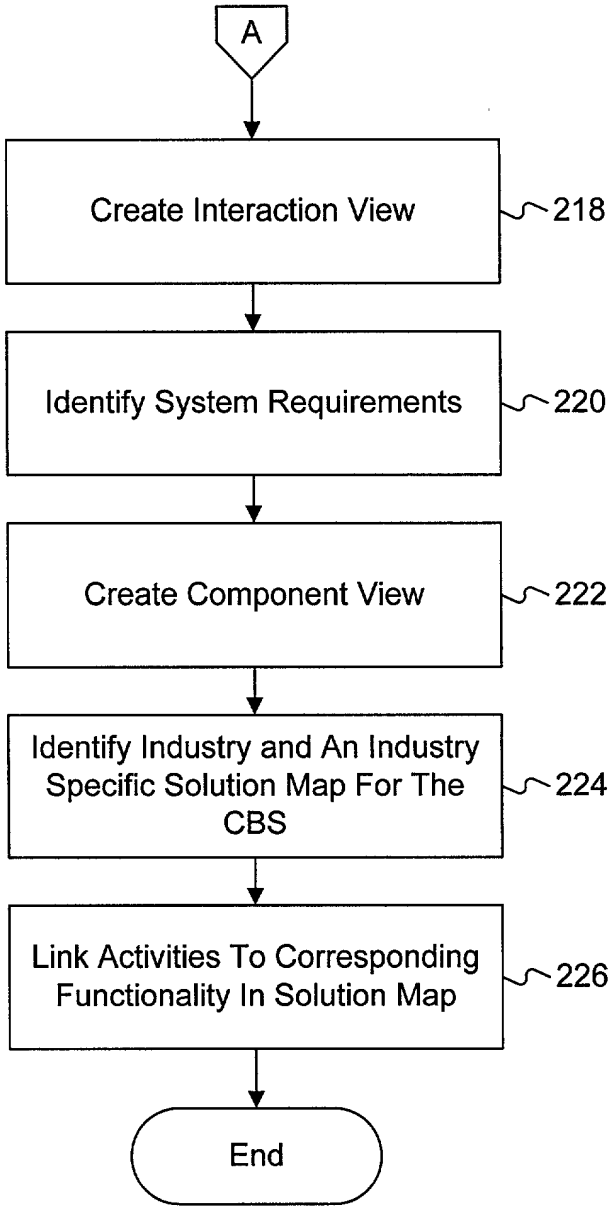
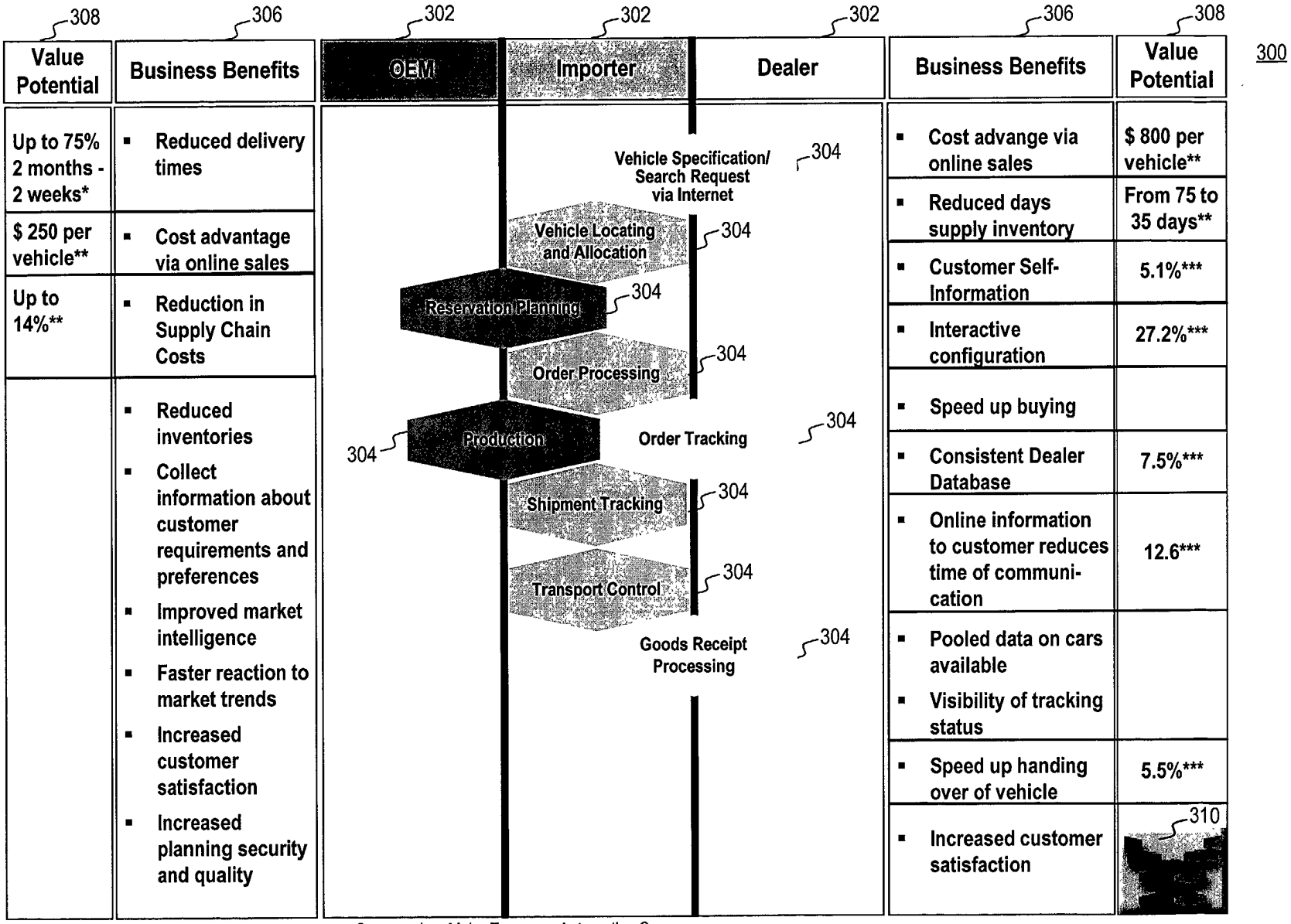

A
Create Interaction View
218
Identify System Requirements
220
Create Component View
222
Identify Industry and An Industry Specific Solution Map For The CBS
224
Link Activities To Corresponding Functionality In Solution Map
226
End

FIG. 2B



Sources: * Major European Automotive Company
** Goldman Sachs Research Analysis, January 2000
*** Percentage of Cost of Sales for new vehicle (DM 453,588 for Germany), Harvard Business manager, 1/2000

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FIG. 3

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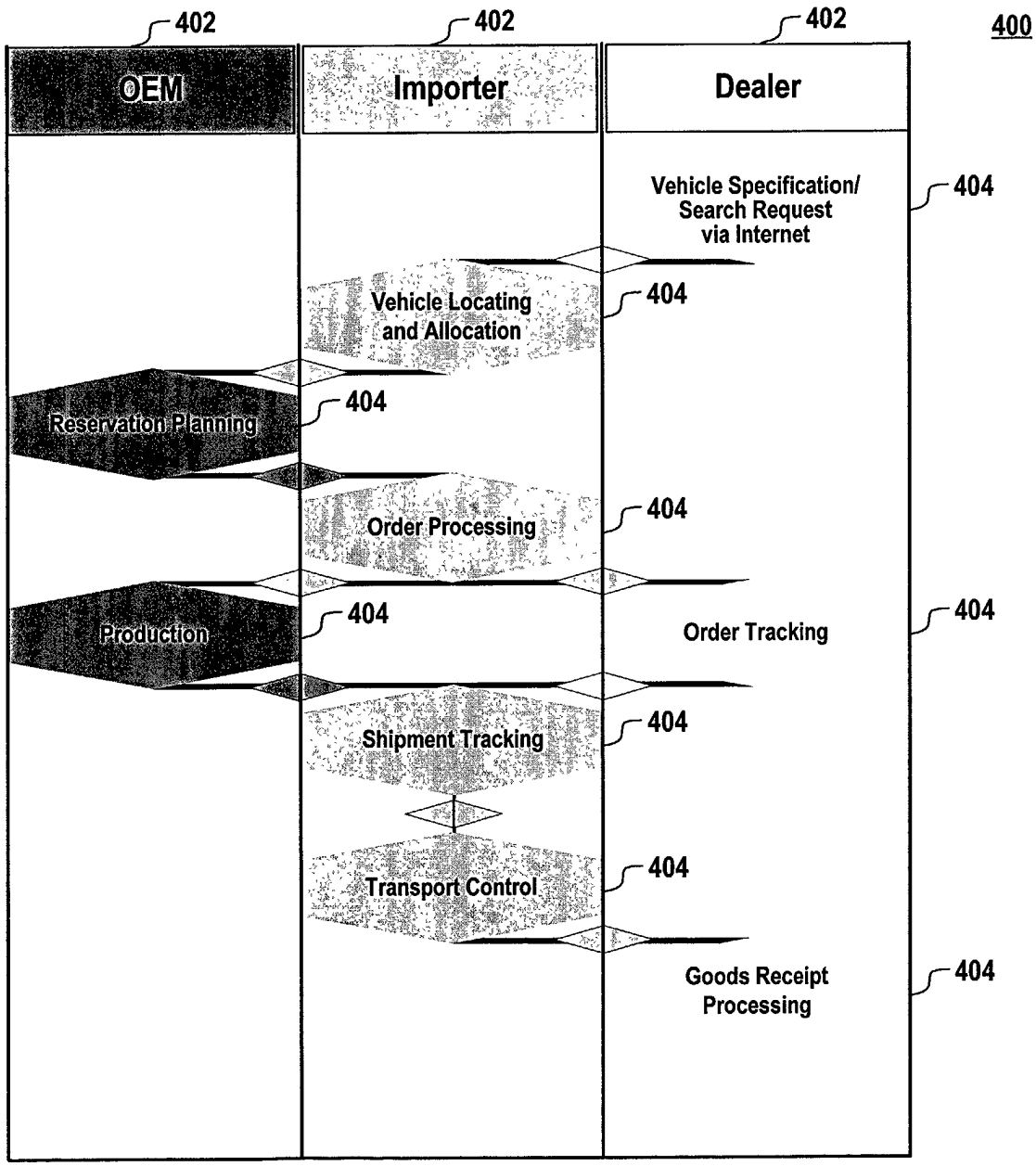

FIG. 4A

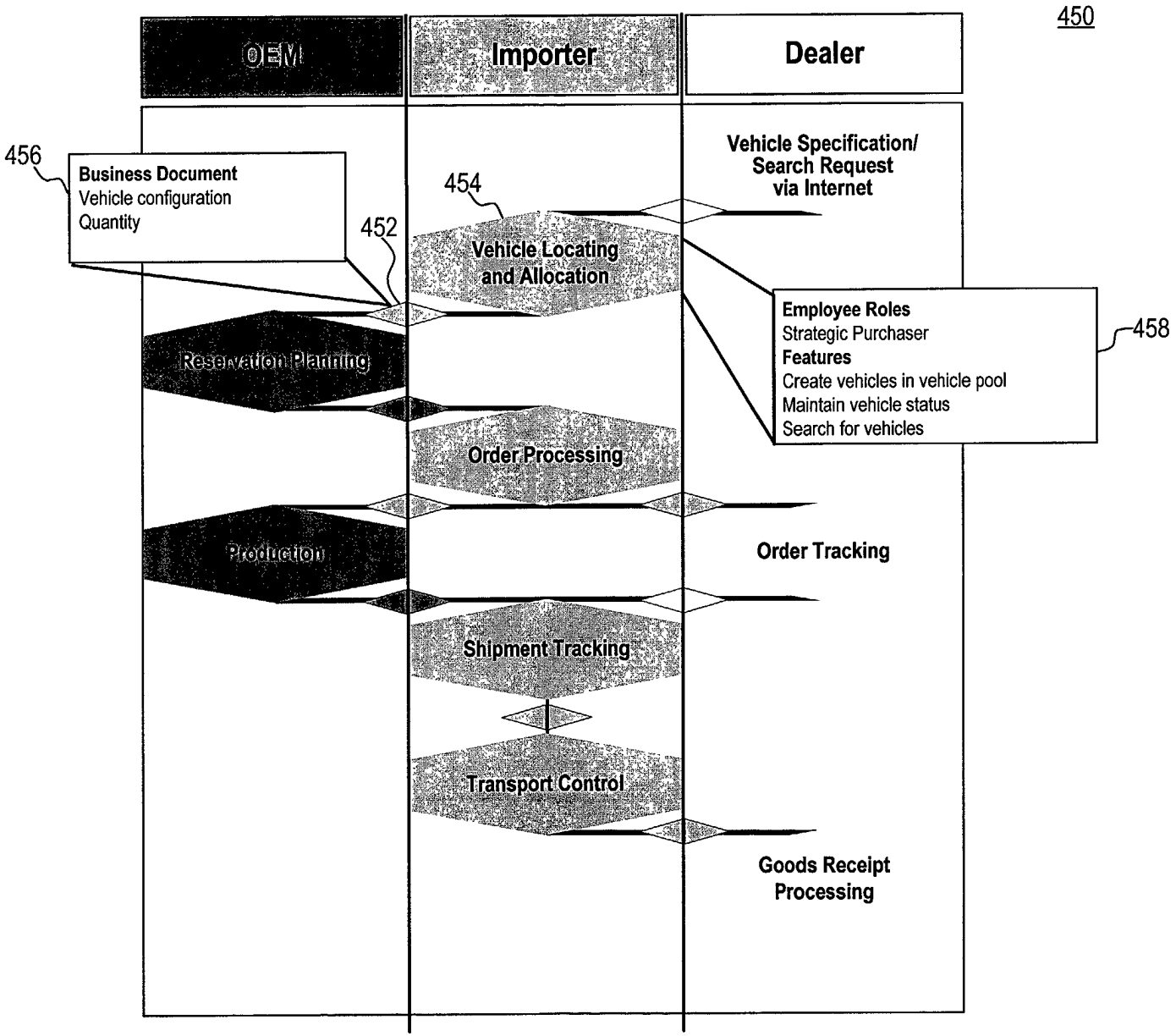

FIG. 4B

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500

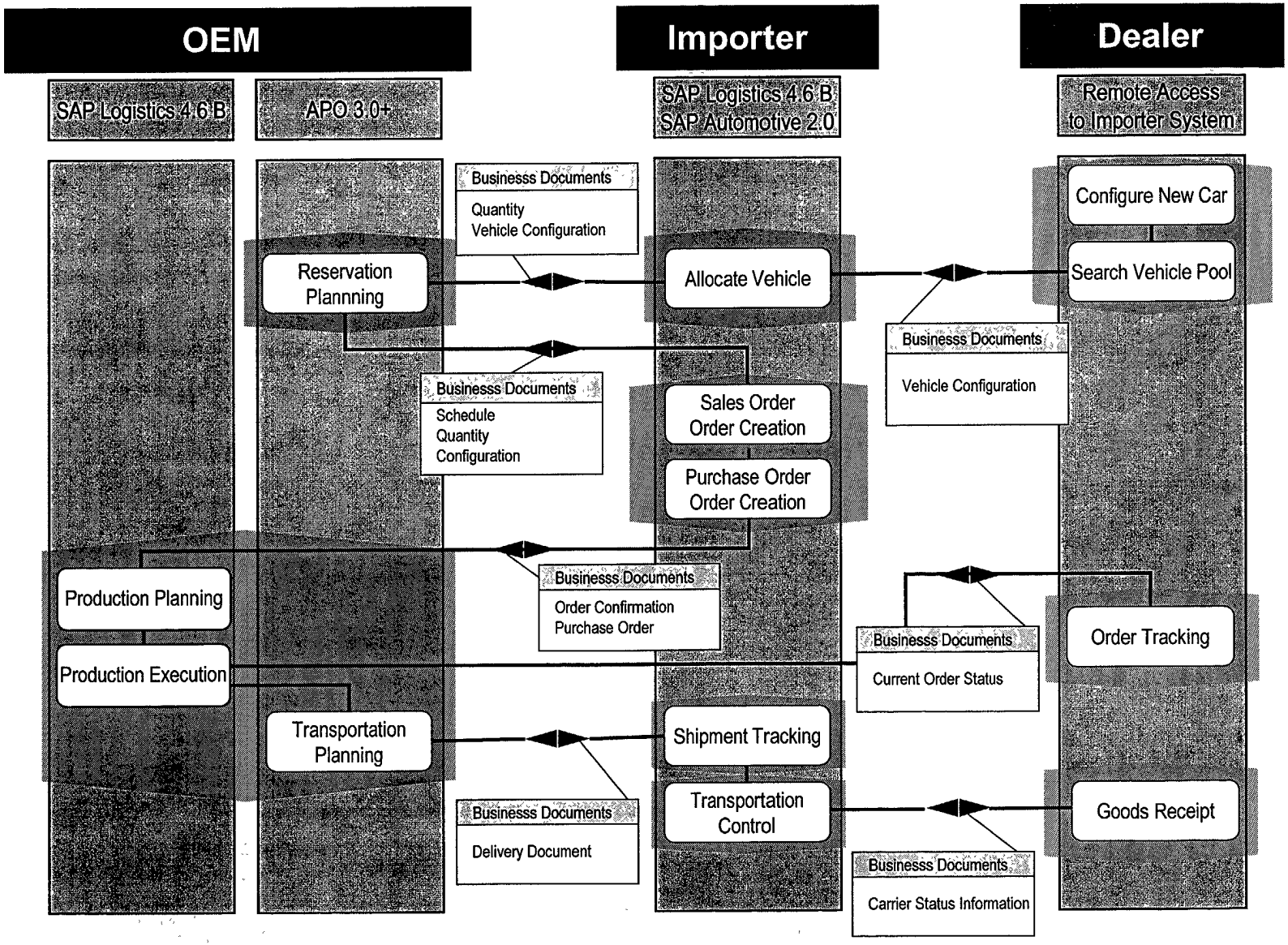

FIG. 5

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000290 "hT260960

600

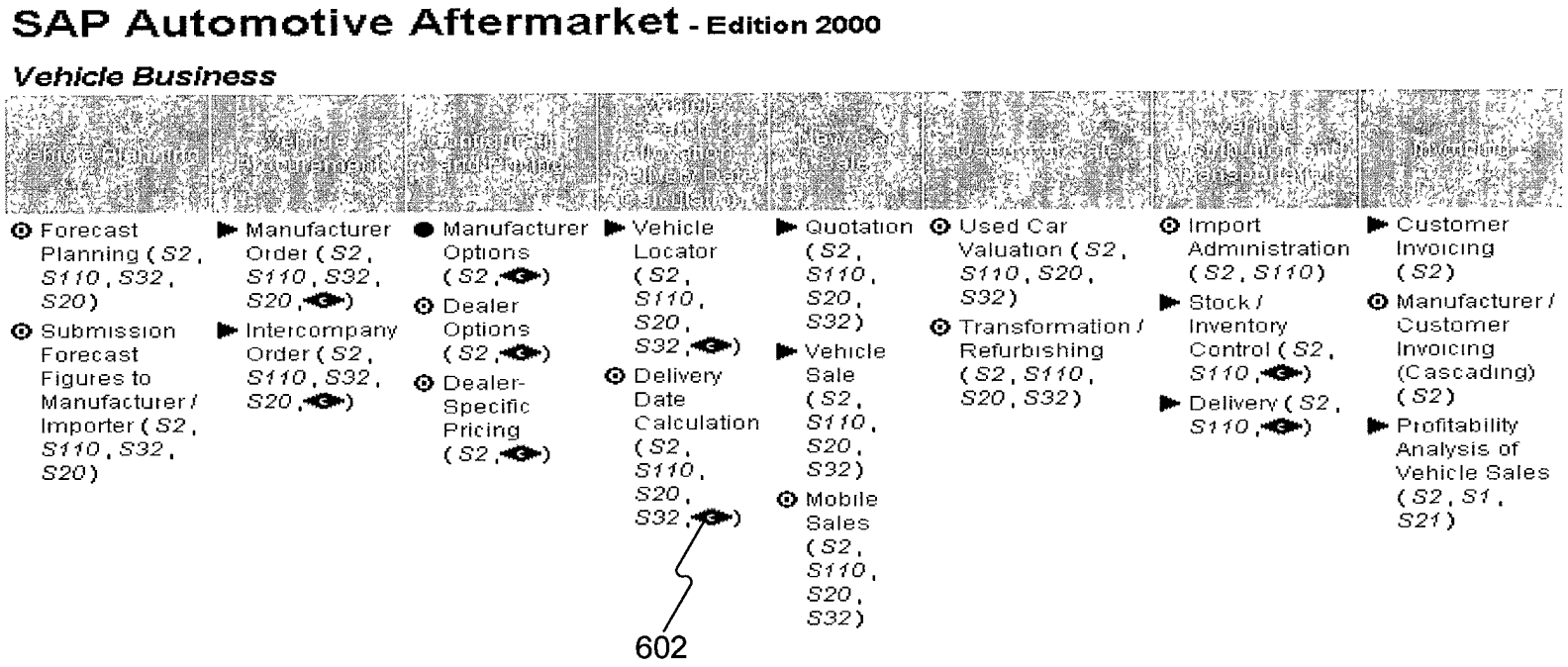

FIG. 6

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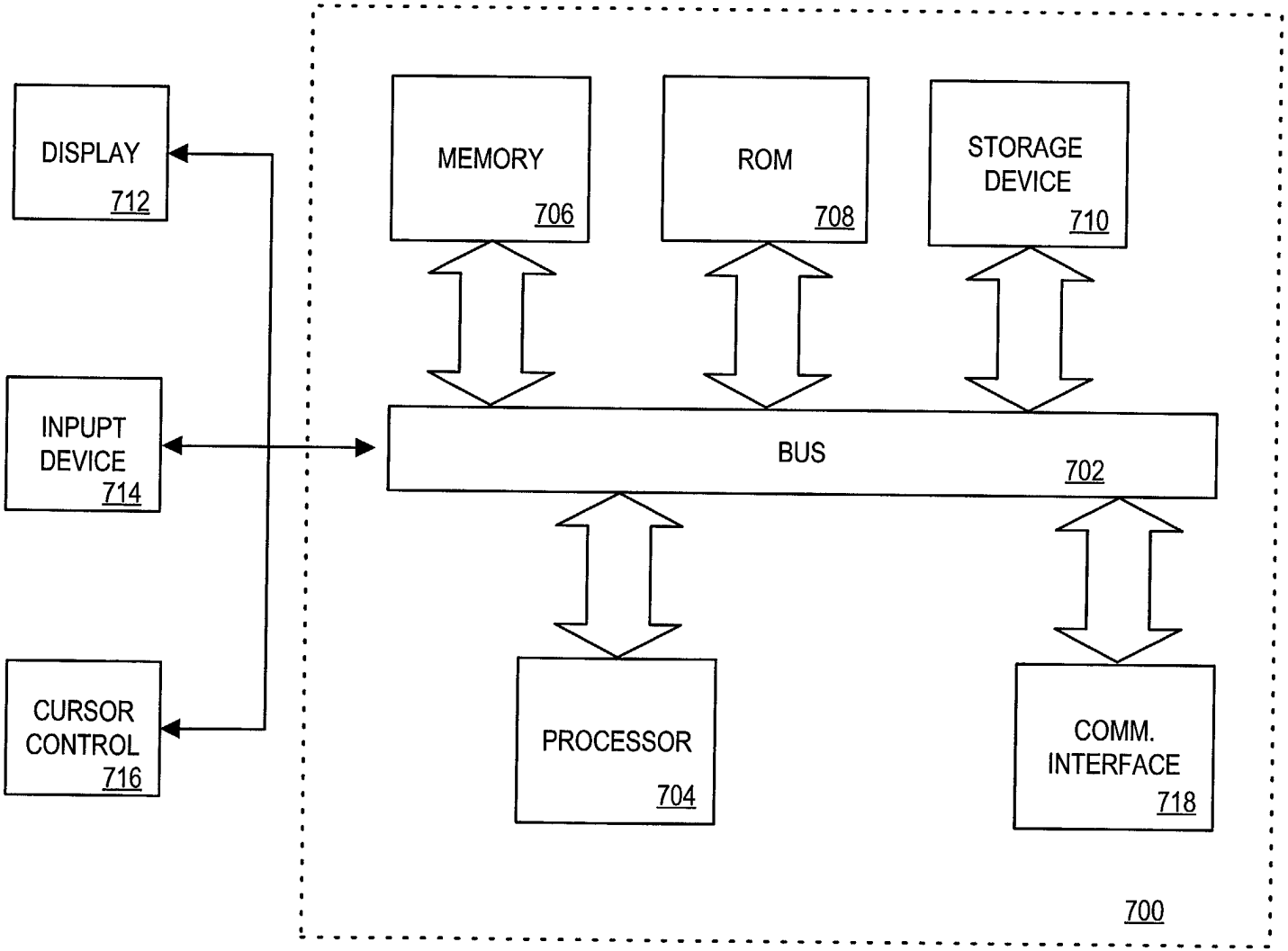
DISPLAY
712
INPUPT
DEVICE
714
CURSOR
CONTROL
716
MEMORY
706
ROM
708
STORAGE
DEVICE
710
BUS
702
PROCESSOR
704
COMM.
INTERFACE
718
700

FIG. 7